This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

**Usage guidelines**

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.

+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.

+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.

+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

**About Google Book Search**

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`

TRANSPORTATION LIBRARY
VM
615
.W19

A 753,305

# THE FIRST
# TRANS-ATLANTIC STEAMER

[illegible] VINDICATION OF THE CLAIM [illegible]
ON BEHALF OF THE CANADIAN STEAMER
"ROYAL WILLIAM"

[illegible]

JAMES WALKER

With Notes

[illegible]

[illegible]

[illegible]
SWAN SONNENSCHEIN & CO. [illegible]
PATERNOSTER SQUARE
[illegible]

UNIVERSITY OF MICHIGAN LIBRARIES

PROPERTY OF
University of
Michigan
Libraries
1817
ARTES SCIENTIA VERITAS

496

5/17 8/6

# THE FIRST TRANS-ATLANTIC STEAMER

35

2

# THE FIRST TRANS-ATLANTIC STEAMER

AN INVESTIGATION OF THE CLAIMS PUT FORWARD
ON BEHALF OF THE CANADIAN STEAMER
"ROYAL WILLIAM"

BY

JAMES WALKER

**With Notes**

BY

SIR C. PURCELL TAYLOR, BART., D.SC., M.A.I.M.E.

LONDON
SWAN SONNENSCHEIN & CO., LIM.
PATERNOSTER SQUARE
1898

Transportation
Library
VM
615
.W19

9-15-52

# INTRODUCTION.

IN a paper read by Mr. Colmer on "The Progress of Canada during the Sixty Years of Her Majesty's Reign," before the Foreign and Colonial section of the Society of Arts, London, on the 16th February, 1897, occurred these words:—"Steam communication across the Atlantic commenced in 1838, but there was no regular service till the Cunard line was started in 1841. . . . There were a few steamboats on some of the rivers and lakes, as already mentioned, but the development of steam was yet in its infancy. Canada, however, enjoyed the proud distinction of having built the first steamer that crossed the Atlantic, the 'Royal William,' launched at Quebec in 1831."

This assertion that the "Royal William" was the first vessel to cross the Western Ocean under steam alone, and hence became the pioneer of Atlantic steam navigation, has of late years been frequently made by Canadians, although it is noteworthy that half a century elapsed before the claim began to be seriously advanced; but the first occasion on which it was made publicly in England was at the meeting of the Society of Arts in London just referred to.

This is very singular, seeing that the origination of such a feat would be an honour to any country.

Hitherto, the honour of being the first steamship to cross the Atlantic under continuous steam has been divided between the "Sirius" and the "Great Western." Both these ships crossed at the same time, and arrived at New York on the same day, viz., the 23rd April, 1838, but as the "Great Western" left England three days later than the "Sirius," it is to her chiefly that the credit is given, inasmuch as she was the first steamer built expressly for the Atlantic trade, whereas the "Sirius" was a small steamer trading regularly between London and Cork, and was despatched across the Atlantic only as an experiment.

Let us, therefore, see whether or not the recorded facts support the claim now put forth on behalf of the Canadian 'Royal William."

# THE FIRST TRANS-ATLANTIC STEAMER.

## PART I.

### STEAM NAVIGATION UP TO 1839.

Now, in order to enable the reader to judge of the possibility or impossibility of either the Canadian "Royal William" or any other steam vessel in existence in 1833 performing a voyage, under steam alone, across the western ocean without stopping, let us consider how far steam navigation had progressed at that time, and in what stage of comparative perfection the marine engine then was. We may learn what was known amongst American engineers up to 1839 from a "Treatise on the Steam Engine," by James Renwick, LL.D. (second edition), published at New York in that year.

1815. "Fulton had planned a vessel which was intended to be used in the Baltic. This vessel was in a state of forwardness at the time of his death.[1] She was (afterwards) placed as a packet between New York and Newport, R.J., in which passage the open sea is navigated for a short distance." (P. 271.)

"In the summer of 1815, the first steam vessel built on the Clyde by Bell made a passage from Glasgow to Liverpool, and during the autumn of the same year (1815) several other vessels also built on the Clyde were sent to different parts of England. During the equinoctial storm in (March) 1816, one of these crossed from Brighton to Havre in a gale which the cutter packets employed at that time on the station were unable to weather." (P. 271.)

---

[1] Fulton died February 24th, 1815.

"In 1818 a steamship plied from New York to New Orleans as a packet, touching at Charlestown and the Havana." (P. 269.)

(In 1819 the "Savannah" crossed in twenty-six days from New York to Liverpool, and afterwards went to St. Petersburg, using sail only during the greater part of the time. Her voyage is too well known to be further noticed here, except to emphasize the fact that from St. Petersburg she returned to her port of departure in the United States.)

"During the year 1819 a vessel rigged as a ship, but furnished also with a steam-engine, was built at New York for the purpose of plying as a packet between that port and Charlestown, Cuba, and New Orleans. Nothing was wanting except sufficient tonnage to have enabled this vessel to cross the Atlantic in a time as short as that employed by the steamships 'Great Western' and 'Liverpool.'" (P. 272.)

"In 1820 steam packets were established between Holyhead and Dublin. . . . The regularity and safety with which the passages between Holyhead and Dublin were performed, established the fact of the superior safety of steamers in storms and dangerous seas. Communications by lines of packets were speedily established between different points of the British Isles and from Great Britain to the Continent—and have long existed to Hamburg, Rotterdam, Antwerp, Calais, and Havre; and there are numerous steam packets plying between different parts of England and Ireland. The most important line is that between London and Leith, in which the largest steam vessels built before those intended for the navy or crossing the Atlantic were employed." (P. 272.)

"The first voyage to India by steam was performed in 1825, by the 'Enterprise.' This vessel took her departure from Falmouth, and was forty-seven days between the Cape of Good Hope and Calcutta. As in the *passage of the* 'Savannah,' the voyage was performed by the *alternate aid of wind and steam*." (P. 273.)

"In spite of these experiments, it was seriously maintained, by no mean authority (Dr. Lardner), as late as

August 1838, that the passage of the ocean, as a regular business by steam vessels, was impracticable. The most that could be hoped, it was alleged, would be to pass from the most western ports of Europe to the Azores or Newfoundland, and then take in a fresh supply of fuel. In the face of these discouraging predictions, the direct passage from a Port in Great Britain to New York was made almost simultaneously by two Steamers before the end of the year in which this argument was held. Of these two vessels, one (the 'Great Western') had been built for the express purpose and had tonnage adequate to the great probable consumption of fuel; the other (the 'Sirius') was of the very class which had furnished the basis of the opinion, and yet the fuel which could be carried was not entirely exhausted. It is therefore established, beyond all possibility of doubt, that steam vessels, if they have the capacity of twelve to fourteen hundred tons, may perform the direct passage from England to New York by steam alone." (P. 273).

The above quotations are from the work of Dr. Renwick, who was as eminent authority on this subject as any of his contemporaries, and with as profound a knowledge. In the notice which he takes of the dubious prophecy by Dr. Lardner as to the impossibility of crossing the Atlantic by steam exclusively, Dr. Renwick proves that he knows not only what is required, but also what had been done in Europe and America. He points out that in prolonged ocean voyages under steam there is even a greater necessity than the supply of fuel—viz., an abundant supply of pure fresh water for feeding the boilers to replace that evaporated into steam, and also for removing the deposits of salt left in the boilers by the evaporation of sea water. He says :—

"There is another species of danger which arises from the deposits of solid substances. The constant evaporation is replaced by new supplies of the same impure water and the soluble portion is constantly accumulating. The soluble parts become greater in quantity than the contained water can hold in solution, and these are deposited, along with those that are merely suspended. Crusts thus form on the lower part of the boiler, and the surface covered by them being no longer in contact with the water, may be heated red hot, and may be corroded in consequence of the property that some of these salts have, of being decomposed by the metals at a red heat. It hence becomes necessary to cleanse the boilers frequently. These deposits become frequent and copious when sea water is used, and it has been found necessary in consequence, to cleanse boilers of steamboats that navigate salt water at least once a week. So soon as the boiler has received successive supplies of salt water amounting together to nine times its own capacity, a crust of a double sulphate of lime and soda will begin to collect. A further evaporation will cause a deposit of salt, and finally of the chloride of magnesia. The necessity of cleansing and scraping boilers in which sea water is used may be in a great degree prevented, by blowing off a part of the water from time to time. This method is, however, attended with great waste of heat and consequent consumption of coal." (This was the state of affairs until the surface condenser, brought out by Mr. Hall in 1832, was generally adopted, but that was not for many years after its introduction. I have been in one ship—the "Harraton"—which, although built in 1867, was at first fitted with jet condensers.—C. P. T.)

We find here not even the least hint of the epoch-making "Royal William" built at Quebec. Perhaps the Canadians were to blame in this, in having kept their secret too well.

Having thus examined the standard American authority on the history and achievements of steam vessels, to a date rather later than the "Royal William's" trans-Atlantic trip, and ascertained that her performance was to Americans utterly unknown or unnoticed, we will next see what the British engineers knew on the same subject.

In June, 1834 (that is, within nine months of the arrival of the "Royal William" at Gravesend, after the accomplishment of her unprecedented and unrivalled feat of crossing the Atlantic under steam alone) a Committee of the House of Commons was appointed to consider the practicability of Steam Navigation to India. This Committee sat for upwards of a month, and examined witnesses of every class from whom they were likely to derive any information on this subject. The result of their investigation was recorded in twelve resolutions, in which the Committee expressed a strong opinion in favour of regular expeditious communication by steam with India. Of these resolutions I need only quote the following:—

"*Resolved:* That it is the opinion of the Committee that a regular and expeditious communication with India, by means of Steam vessels, is an object of great importance both to Great Britain and India.

"That steam navigation between Bombay and Suez having in five successive seasons (that is since 1828) been brought to the test of experiment. . . . the practicability of an expeditious communication by that line during the North-East Monsoon has been established.

"That the experiments which have been made have been attended with very great expense; but from the evidence before the Committee, it appears that by proper arrangements the expense may be materially reduced, and, under that impression it is expedient that measures should be immediately taken for the regular establishment of steam communication from India by the Red Sea." (*Captain Grindley.*)

This Parliamentary Committee does not seem to have been informed, by any of the witnesses who gave evidence before them, of the arrival a few months before of a trans-Atlantic steamer, although her alleged voyage was so eminently pertinent to the discussion; and such an occurrence could not have been so soon forgotten. Further, amongst those persons most concerned in the adoption of steam navigation to India were several who had had dealings with the "Royal William"; yet we find no mention of her at all. The persons we refer to were Mr. Samuel Cunard, who was a director of the company owning the "Royal William," and on whose advice she was sent to England. He was also agent for the East India Company. Messrs. Wilcox & Anderson, who were shipbrokers to the East India Company, who (as brokers) bought the "Royal William" for Mr. Simes, and who were among the founders of the present Peninsular and Oriental Company.

The most intense interest was manifested in this question both in India and England during the eight or ten years previous to this period. It was perpetually stimulated by the discoveries and improvements that were daily being made. The opening of the Liverpool and Manchester Railway in September, 1830, had awakened men's minds to the almost limitless powers of steam in land transport, and enabled them to appreciate the progress made in steam navigation. Hence the fact that the Canadian "Royal William" was so universally ignored, escaping all notice amid such competition of novelties, can only be explained by her having failed in the contest.

In the same year that Captain Grindley published the book from which we have given extracts, Dr. Dionysius Lardner published one in the form of a letter to Lord Melbourne on the same subject, entitled "Steam Communication with India," Calcutta, 1837, in which he says:—

"There are even now in a progressive state several important improvements (in the steam engine) by which its efficiency in navigation will be materially augmented; and if the Committee of 1834, from the evidence then laid before them, and from the fact of voyages being made by the "Hugh Lindsay" during the successive seasons, saw reason to be satisfied of the practicability of the measure, how much more forcibly would they *now* impress their recommendation on Government, having before them the extended and improved state of the art of steam navigation, and the fact that the voyages by steam between India and Egypt have continued to be successfully made, under the disadvantages of inadequate vessels." (P. 12.)

"The distance from Falmouth to the nearest port of

India by the Mediterranean and the Red Sea is 5,800 miles, of which there are not 200 miles of land." (P. 13.)

"The most extensive line of steam navigation, of which we have yet had any lengthened experience, is that of the Admiralty packets, which for several years have maintained a regular communication between this country and the Ionian Isles, Egypt, and occasionally Syria. The stages of this line have been—first, from Falmouth to Gibraltar, 1,010 miles; secondly, from Gibraltar to Malta, 970 miles; thirdly, Malta to Alexandria, 860 miles. So far as Alexandria, then, here is a voyage of 2,800 miles performed with certainty and regularity for a long continuance. In the arrangement of the successive stages of a long sea voyage by steam, the first object should be to see that the longest stage shall not exceed that distance for which the steamship shall be able to carry *sufficient fuel* under the most adverse circumstances of wind and weather. It is probable that a well-constructed vessel furnished with the best machinery could carry fuel for a stage of about 2,500 miles in average weather; but under more adverse circumstances she would exhaust the fuel by a passage of less than 2,000 miles. But besides the consideration of fuel, there are other circumstances to which regard must be had. It is found that the machinery of a steamer requires, after moderate intervals, to be examined and re-adjusted; the fireplaces and flues to be swept and scraped; the boilers to be discharged of their contents, and well cleansed both internally and externally. If this process be omitted or only observed after protracted intervals of uninterrupted work, the machinery will not only be quickly destroyed, but even while it lasts the performance of the vessel will be inefficient; her speed will be diminished, her consumption of fuel will be augmented, and that portion of the fuel which fails to propel her will be actively engaged in working her destruction. . . . Although, therefore, a stage of from 2,000 to 2,500 miles be *practicable*, it is most inadvisable, and arrangements should be made if possible that the stages be limited to distances from 1,000 to 1,500 miles. . . . By such a process no time would be lost if the stages are long, such as 1,000 to 1,500 miles, because, if the whole voyage were performed by the same vessel, she would have, on arriving at each station, to take in fuel, *and would also have to put out her fires, cool her boilers, blow out their contents, clean her fireplaces and flues, and re-adjust all the working parts of the machinery*." (P. 20-22.)

"The distance between Bombay and Suez is 3,000 miles; the nearest point of land on the west to Bombay being an island called Socotra, situate nearly 200 miles east of the mouth of the Gulf of Aden, and 1,200 miles west of Bombay. The distance from Socotra to Suez, about 1,800 miles, might be resolved into stages by any of the various harbours and roadsteads of Mocha, Camaran, Loheia, Jedda, Cosseir, etc., on the shores of the Red Sea; but that to which I should think the preference should be given is the Island of Camaran , . . the stage from Socotra to Camaran being 800 miles, and from Camaran to Suez 1,000. It would be, therefore, sufficient to resolve the voyage between Bombay and Suez into these three stages." (P. 25.)

"It will be necessary to consider the limit which is imposed on the length of a trip by the power of the vessel to carry fuel . . . . Now I have found from an investigation of the performance of the frigate 'Medea' for above 10,000 miles, that in average weather a ton of coals per horse-power will carry her a distance of above 2,000 miles; a ton and a half (*i.e.*, without her guns) would therefore carry her a distance of 3,000 miles. . . . . The average rate of the 'Medea' derived from 10,000 miles of her performance, I have found to be about eight miles an hour; if, therefore, by the force of the monsoon, her rate were reduced to 3⅕ miles an hour, the accomplishment of the passage would be practicable." (P. 29-30.)

Thus Dr. Lardner, contrary to the words he himself used in the hearing of my shopmates, no longer after this book above quoted was published than August, 1838,[1] "that the passage of the ocean, as a regular business by steam vessels, was impracticable." Renwick also said (p. 273): "They must take in a fresh supply of fuel at the Azores or Newfoundland."

---

[1] Dr. Lardner's book is dated 1837.

Dr. Lardner, however, points out that the supply of fuel was not the only or the chief difficulty to be met in long ocean steam voyages, and also that if judicious use be made of sails, the consumption of fuel might be minimised or avoided altogether.

"During the monsoon, if efficient steamships be provided for the purpose (and none others should be adopted), the passage from Socotra to Bombay will be made *under sail only*, the fuel, therefore, appropriated to the passages with the monsoon will be altogether saved"; and in a footnote he adds, "The frigate 'Medea' furnishes a striking proof that a steamer may be also an excellent sailing vessel.[1] The present is one of the few cases in which it would be advantageous occasionally to see a steamship as a sailing vessel. . . . In a communication with New York there would be the competition of the finest sailing vessels that ever crossed the ocean, capable also of profiting in no inconsiderable degree by cargo." (P. 32-3.)

(Thus we see from the extracts above quoted that the economy of employing sails and steam conjointly or in alternation was well understood; but that it was then impossible for any steamer to keep her engines going continuously for more than three or four days at the utmost, after which it became necessary to stop for cleaning. Hence that a steam voyage across the ocean—that is, by steam pure and simple—was impossible; and this is, I believe, the true sense of Dr. Lardner's much disputed speech at Liverpool; although it has been hinted that he was paid to magnify the difficulties of a task, and so make a better case for those people who wanted the Government to subsidise Atlantic mail steamers. —C. P. T.)

When the reader comes to examine in detail the particulars of the Canadian "Royal William's" voyage, he will be struck by the coincidences between it and the voyages discussed above, that is to say, in the use of both sails and steam, and the continual stoppages for cleaning.

---

[1] See also Tridgold's remarks on the performance of the "Medea."

Yet it does not appear that any of the writers we have quoted ever heard of the "Royal William" or her Atlantic voyage. They simply set before us the common knowledge and everyday experience of the engineers of their day.

# PART II.

## THE CANADIAN CLAIMS ON BEHALF OF THE "ROYAL WILLIAM."

THE case in favour of the "Royal William" was stated fully in a paper read before the Literary and Historical Society of Quebec, on 31st of March, 1891, by Archibald Campbell, Esq., one of the Vice-Presidents of that Institution. This paper was afterwards reprinted (with some additions) at the *Morning Chronicle* office in Quebec, as a pamphlet with the title "'The Royal William,' the Pioneer of Ocean Steam Navigation."[1]

The title was manifestly erroneous, for this steamship was not the first to cross the Atlantic or any other ocean, nor indeed could the term of Pioneer be in any way applied to her. It could hardly mislead the Canadians; but it certainly gives one an indication of the tone pervading the pamphlet. That the reader may have the claims clearly before him, I make the following verbatim extracts:—

"The subject of my paper is the steamship 'Royal William,' as I pretend, the Herald of Confederation, the pioneer of the Cunard Fleet, and of Ocean steam navigation. She was the first Ocean steamship to cross the Atlantic solely propelled by the motive power of steam. She was built expressly as an Ocean steamship, to contend with the storms of the Atlantic; built too in the Port of Quebec, by the united efforts of Quebec, Halifax and Montreal enterprise; designed, draughted and perfected by Quebec ship architects, builders, carpenters and broad axemen. Her engines were made in Montreal and there adjusted to her.

---

[1] These and the other pamphlets, etc., referred to hereafter can be seen at the Canadian Government Office in Victoria Street, London.

So you will see that Canada, this Canada of ours, took a vast onward step in teaching mankind how to girdle the world by steam power and bring the ends thereof to every man's door and enable him, should famine threaten at home, to obtain corn rapidly, easily, and economically in any distant Egypt where it would likely be found, even on the other side of the globe, and that, too, with greater facility than the sons of Jacob ever did when they sought it in the land of the Pharaohs, though neighbouring to their own.

"I need scarcely say how delighted I felt when I read in the papers of the early part of the year that a Royal Naval Exhibition, in aid of the funds to relieve the poorer members of that service, would take place in May next, in London, and that the Naval Committee had arranged to have a very complete and historical collection of objects connected with navigation. Here, then, was a chance to claim from the world a recognition of our right of being regarded as the greatest benefactor in modern times to the human race, as having inaugurated ocean steam navigation. So at the annual general meeting of this society, in January last, I moved, seconded by Mr. W. C. N. Wood, that we should lend to the said Royal Exhibition the model of the 'Royal William,' which had been presented to the Society by the late Mr. Henry Dinning; that motion was agreed to. What then was my utter astonishment when the Honorary Secretary, Captain Jephson, though courteously thanking the Society for its kindness, good wishes, etc., said 'not to send the model unless it could be well authenticated that the "Royal William" was really the first steamship to cross the Atlantic, as the Naval Committee are very particular about proper authentication.' This took me all aback, as the sailors say. What? a Naval Committee not know that our 'Royal William' was the first steamship ever to plough the ocean without the aid of wind, aye, and against it; that ocean upon which Britannia boasts to be mistress? What next? Surely, then, they must know little of the antecedents of our glorious country to doubt our righteous claim.

"I determined to satisfy them that our right was beyond contention. . . . I looked up to Mr. J. M. Le Moine, F.R.S.C., etc., for many years, as you all know, President of our Literary and Historical Society; and he very kindly and most willingly gave me such information upon the subject as to lighten the work I had undertaken, in order to satisfy the Naval Committee that our claim was good.

"By the 5th Geo. IV. cap. 20, it will be seen that the Government of that day offered inducements to the 'first person or company that shall cause a steam vessel of not less than 500 tons burden to be built and regularly navigated between the ports of Quebec and Halifax;" but the subsidy therein offered was not of a sufficiently attractive nature to induce any to nibble at the bait. What do you think it amounted to? $6,000.[1] Five years elapsed. The Act remained a dead letter, when a greater inducement was offered by the 10 and 11 Geo. IV. cap. 33; in fact the subsidy was therein doubled." (P. 16.)

"Her first voyage to Halifax proclaimed her the forerunner, if not the first, of the Cunard line of steamers . . . . Sir Samuel Cunard and his brothers (Joseph and Henry), now of Imperial reputation, were part owners of the 'Royal William,' for they were corporators in the said Association." (Pp. 17-19.)

"The 'Royal William' had made many trips to Halifax, and one would imagine that the interest of Legislature would now cease in the concern; but no such thing; its paternal care still hovered over its bantling, for another Act, the fourth[2] one, was passed during the Session of 1831-2, the 2 William IV., cap. 2. Thus the policy which suggested the building of the 'Royal William' occupied the attention of the Legislature for a period of seven or eight years, and *this last Act relieved the vessel from facing the storms of the Atlantic*, and authorised the Finance Minister to pay the subsidy, though the voyage extended no farther than Picton in Nova Scotia.

---

[1] This is incorrect. The subsidy was £1,500; the dollar did not then or now exchange at 5s. (Note by Sir P. T.)

[2] The third Act was the one incorporating the Company which built and owned the "Royal William."—C. P. T.

Now, though we have not been able to get hold of the log-book, what is the inference we must draw from this Act, but that in the autumn of 1851, on one of her trips to Halifax, the 'Royal William' had encountered severe weather on the ocean, that perhaps her bulwarks had been stoven in, her wheels broken, boats carried away, and divers other injuries sustained.[1] On her return to port, it is evident a meeting of the shareholders took place, and a stormy one, I opine, it was." (P. 20.)

"After this we hear little or nothing of trips to Halifax. The year 1832, as we all know, the hand of the Almighty, for some wise and inscrutable purpose, afflicted the children of Adam. The dreadful cholera broke out, the streets of cities were deserted . . . ; trade was at a standstill, and as a consequence the 'Royal William' did not prove a financial success, and the sheriff's hammer transferred her to other owners. . . . . They, of bolder spirit than the majority of the old association, sent the 'Royal William' on an ocean voyage to Boston, 'to plume her feathers and let grow her wings' prior to attempting a higher flight; and then, satisfied of the capabilities of the craft 'on the dark blue sea,' '*their* thoughts as boundless, *their* hopes as free,' decided to risk her on a voyage to England, and so she left our shores and steamed across the Atlantic *the whole way*, as is conclusively established by two letters of Captain McDougall. I shall now read them:—

"LONDON, November 16, 1853.[2]

"MY DEAR WILLIE,

"You will, I am certain, think me very neglectful in not giving you an earlier account of our proceedings with the 'Royal William.' We left Pictou on the 18th of August, after having waited several days for some passengers who were expected from Prince Edward Island, and for whom we laid in a stock. We were very deeply laden with coal, deeper, in fact, than I would ever attempt crossing the Atlantic with her again; however, we got on the Grand Bank of Newfoundland, where we experienced a gale of wind which rather alarmed my engineer; he wished very much to go into Newfoundland. We had previously lost the head of the foremast, and one of the engines had become useless from the beginning of the gale; with the other we could do nothing, and the engineer reported the vessel to be sinking. Things looked rather awkward. However, we managed to get the vessel cleared of water, and ran by one engine after the gale, ten days. After that we got on very well, and put into Cowes to clean the boilers, a job which generally occupied them from twenty-four hours to twenty-six every fourth day. However, we managed to paint her outside while there—the inside we had previously done—which enabled us to go up to London in fine style. Ten days after her arrival she was sold, and has been since thoroughly repaired and coppered. Her model is considered to be superior to any of their steamers here. I should not be surprised to hear that George Black had got orders to build some more like her. She was sold for £10,000, which I believe has all been paid. I am now employed by her owners at £30 per month, and I shall sail in a few days for Lisbon.

---

[1] The italics are mine. It appears, then, that this much-lauded vessel was not able to stand the weather met with in short coasting voyages, yet we are told she was an "Ocean Steamer."

[2] This should have been printed 1833.—C. P. T

My dear Willie, believe me to be,
Ever sincerely yours,
"JOHN MCDOUGALL.

"In the 'History of Lower Canada,' by Robert Christie, vol. v., published at Quebec in 1854, page 362, is found the following letter from Captain John McDougall, claiming to have been the first who actually crossed the Atlantic solely by steam.

"Saint Foy,
"*10th August*, 1853.

"ROBERT CHRISTIE, Esq., M.P.P.,

"Dear Sir,—I lately found some papers connected with the 'Royal William' steamer which brought to my recollection my promise to furnish you with a brief sketch of her history while I was attached to her from the 19th of April, 1833, to the 1st of January, 1838.

"I took charge of her at Sorel, after she was sold by Sheriff's sale, from Captain Nicolas, and was employed during the month of May, towing vessels from Grosse Isle, and afterwards made a voyage to Gaspe, Pictou, Halifax, and Boston, in the United States, being the first British steamer that entered that port. On my return to Quebec, the owners decided on sending her to London to be sold, and I left for London *via* Pictou, on the 5th of August, and was detained at Pictou until the 18th, repairing the engines and boilers and receiving coals. I then started for London and was about twenty days on the passage, having run six or seven days with the larboard[1] engine, in consequence of the starboard engine being disabled, and was detained at different times, about a week, laying-to repairing the boilers, which had become very leaky.

"About the latter end of September the 'Royal William' was sold by Messrs. Geo. Wildes and Co. (the agents to whom she was consigned) to Mr. Joseph Simes, the ship owner of Radcliff,[2] through Messrs. Wilcox and Anderson, for £10,000 sterling, and chartered to the Portuguese Government to take out troops for Don Pedro's service, and on my arrival at Lisbon offered to them for sale as a vessel of war, but rejected by their admiral, Count Cape St. Vincent, the present admiral Sir Charles Napier."

The letter then goes on with the history of the "Royal William" in Portuguese and Spanish hands, which does not concern us at present, and concludes:—

"She is justly entitled to be considered the *first steamer that crossed the Atlantic by steam, having steamed the whole way across,* while the 'Savannah' American steamship, which crossed in 1822 to Liverpool and Petersburg, sailed the most part of the way going and returning.

---

[1] "Larboard" is now called "port."

[2] Should be Ratcliffe.– C. P. T.

"I remain, dear Sir,
"Your most obedient servant,
"JOHN McDOUGALL.

[Captain McDougall died the year after having penned the above letter.]

Certainly Mr. Campbell's language prepared us for some more triumphant history than the series of disasters displayed on his own statement (p. 18 *ante*), and in Captain McDougall's first letter (p. 19 *ante*).

But even Mr. Campbell's oratory is outdone by a letter dated February 10th, 1894, from Mr. Würtele, printed in the Canadian Government Sessional Papers for 1895-6. Mr. Würtele says:—

"The 'Sirius' and the 'Great Western' appeared on the horizon five years after the 'Royal William,' and therefore have no claims whatever. I mention these because people in Britain have, through ignorance, advanced claims on the premises on their behalf."

To comment on this would spoil the effect.

In 1893 Mr. A. F. Macdonald published a book entitled "Our Ocean Railways," in which he tells us that as a boy he saw the "Royal William" while she was being engined at Montreal; and he speaks of her as making "the experiment which proved not only the feasibility, but also the possibility of trans-Atlantic steam navigation . . . the honour of solving these problems belongs to the Canadian steamship 'Royal William.'"

Mr. Macdonald's account of the history of this ship is somewhat inaccurate in its details. He speaks of the voyage to England and quotes the Annual Register concerning it; but he does not speak of the trouble with the engines and boilers. He says, however, that the engines were made by

Boulton and Watt, of Birmingham, and were fitted into her by Bennett and Henderson.[1]

Since then the substance of the claim has been repeated in a book called "The History of North Atlantic Steam Navigation," written by Mr. Fry, Ex-President of the Canadian Board of Trade, published in 1896. There is, however, no further information in it than has already been quoted.

But the most voluminous and authoritative publication of the claims for the "Royal William" is to be found in the official publications of the Canadian Government, viz., the Departmental Reports and Sessional Papers for 1895-6.

In these, every scrap of evidence in favour of the claim has been collected and reprinted at length. The Acts incorporating the company for whom she was built—her history in Canadian waters—her seizure and sale by the sheriff—her being sent to England for sale when it appeared hopeless to dispose of her in Canada—letters and other testimony from those who built her, or saw her, but not from anyone who sailed in her—all these are detailed at most wearisome length.

But the whole of the testimony relating to her voyage across the Atlantic is comprised in the two letters written by her captain, one soon after the ship was sold off in England, the other written twenty years later; and these letters which we have reprinted on pages 18-19 *ante*, show very plainly what kind of a voyage it was.

Not a word from any of the passengers, although some of them are said to be alive now, and were certainly living and known at the time enquiries were first made. Not a word from the one most qualified to give evidence—her engineer—who was living in Montreal, on the very spot.[2]

---

[1] This, I think, is incorrect. Boulton aud Watt supplied a pair of engines a little before this time to certain buyers who afterwards became partners in the Quebec and Halifax Company, but I believe the "Royal William's" engines were copied from Boulton and Watt's pair by the Montreal foundry. —C. P. T.

[2] See Preble's "History of Steam Navigation," p. 123.—Sir C. P. T.

How is this?

Can it be that their testimony was suppressed because it showed plainly and absolutely that the voyage was *not* made under steam alone?

But to proceed.

Let us learn what are the actual and undoubted facts.

# PART III.

## FACTS ABOUT THE "ROYAL WILLIAM."

DIVESTED of all ornament and colouring, the facts, as obtained from the "Report of the Secretary of State for Canada for the year ended 31st December, 1894," are simply as follows:—

(The numbers refer to the pages in that Report, which may be seen at the Canadian Government Offices, London.)

"The Canadian Government passed four Acts to bring about better communication between the Lower and Maritime Provinces."

"The first of these was passed in 1835. It offered £1,500 (*i.e.*, £500 for each of three years) to any person or company who first built and regularly navigated a steamer of not less than 500 tons between Quebec and Halifax during *four* years." (P. 61.)

"Apparently nothing was attempted,[1] for in 1830 another Act was passed increasing the subsidy to £3,000." (*Ib.*)

"In 1830, the Quebec and Halifax Steam Navigation Company was organised to take advantage of this offer, and the Act incorporating that company was passed on 31st March, 1831—only four weeks before the launch of the 'Royal William.'" (P. 62.)

"The 'Royal William' was commenced at Quebec on the 2nd September, 1830, and was launched on Wednesday, 27th April, 1831, amid great rejoicing. She was 363$\frac{80}{94}$ tons burden official measurement; length of deck, 176 feet; breadth, 44 feet over the paddle boxes, and between them

---

[1] I am doubtful about this, for I know that several large steamers were built and at work on the St. Lawrence about this time; one of them—the "Lady Sherbrooke"—measured 800 tons.—C. P. T.

28 feet; depth of hold, 17 feet 9 inches. Her engines were constructed by Messrs. Bennett and Henderson, of Montreal. (P. 67.)

Many vessels and steamboats had been built at Quebec ere this.

"The 'Royal William' sailed on her first voyage to Halifax on 24th August, 1831, and made three voyages that season, going into winter quarters on the 17th November." (P. 68.)

"A fourth Act of Parliament was obtained on 25th Feb., 1832, enabling the Company to obtain the subsidy by running only as far as Pictou, instead of to Halifax." (P. 68.)

"Next year came the cholera. The 'Royal William' started on 16th June, 1832, on her first and only trip to Halifax, going into winter quarters at Sorel on 24th Oct." (P. 69.)

"To meet expenses she was mortgaged for £5,000, and sold by the Sheriff on 3rd April, 1833, to the Mortgagees for £5,000, *i.e.*, for nothing, since they had already advanced that sum." (P. 69.)

"The Mortgagees then offered to return the ship if before 1st June, 1833, the Company repaid them the £5,000, plus expenses of outfit since the sale, and paid the debts due by the Company amounting to about £1,000 more." (Pp. 69-70.)

"The Company did not accept this very generous offer, and the steamer then passed into the hands of six gentlemen, some of whom where subscribers to the original Company." (P. 70.)

"In the beginning of 1833 she was used for pleasure excursions and towing ships." (P. 70.)

"Her owners then decided to send her to England for sale, and she left Quebec for Pictou on the 5th August, 1833, at 5 a.m." (P. 71.)

"She arrived at Pictou on 8th August, and her engines and boilers had to be repaired when she got there after this three days' run." (P. 71.)

"She left Pictou for London on the 18th August (having been detained ten days by repairs to the engines and boilers, coaling and passengers), her cargo consisting of 254 chaldrons of coals, with seven passengers." (Pp. 71-72.)

" She was passed by the barque ' Rokeby ' on 27th Aug., in Latitude 47° 55′, Longitude 45° 30′, sails set and steam up, nine days out. Wind W.S.W." (P. 72.)

" On the voyage the head of the foremast was lost. After that came a gale of wind, at the commencement of which the larboard or port engine became useless. The other or starboard engine was disabled, and nothing could be done with it. The ship was thought to be sinking, but was eventually cleared of water. After the gale she ran by the one larboard engine ten days, stopping every fourth day for 24 or 26 hours to clear the boilers and to repair them, for they had become very leaky." (P. 72-73.)

" On 9th September, 1833, she put into Cowes (Isle of Wight) to clear the boilers and paint the ship, and on the 12th she arrived at Gravesend." (P. 72 and *Lloyd's Register.*)

" At the end of September, 1833, she was sold through Wilcox and Anderson to Mr. Simes for £10,000, and chartered to the Portuguese Government, who used her as a coasting transport until her sale a year later (on 10th Sept., 1834) to the Spanish Government. By them she was used in a similar capacity till the latter end of 1837, when she was found to be so much decayed that her engines were taken out of her, and she was converted into a hulk at Bordeaux." (P. 73.)

Thus the " Royal William's " total life as a steamship was six years and a half; and she passed out of existence before either the " Sirius " or the " Great Western " crossed the Atlantic, and before the Liverpool " Royal William," with which she is so frequently confounded, was built.

These are the undoubted facts of the case.

Bearing them in mind let us now examine the Canadian claims in detail.

## PART IV.

### AN EXAMINATION OF THE CANADIAN CLAIMS.

No one denies the facts as to building, dimensions, launch, etc., of the "Royal William"; but it is evident that Mr. Campbell and his followers are wholly in error in asserting, as they do (see p. 15 *ante*), that "she was built expressly as an ocean steamship to contend with the storms of the Atlantic."

Such a statement will not bear a moment's scrutiny, for by the Act of Incorporation her owners were empowered only to build or run steamers between Quebec and Halifax. They had no power whatever to build or run a steamer for trans-Atlantic voyages, and had they done so, the Company would that moment have ceased to exist in law. So much for the first part of the claim. As for the second, we might grant it if the facts did not forbid us to do so. Any ship navigating the gulf of the St. Lawrence *in winter* would have "to contend with the storms of the Atlantic." But unfortunately for this claim the St. Lawrence is not navigable in winter at all, even for a large and powerful mail steamer. This stern law of nature confirms the facts which are set out on page 17, that the "Royal William" was built for the summer trade only up and down the St. Lawrence and round the coast as far as Halifax. On the approach of winter she was laid up till the following spring, which rendered the river navigable once more.

Great credit has been assumed for the design of the hull of the "Royal William." There was no novelty in this. The lines and dimensions, as they are given in the pamphlets and in the models, are exactly those of steamers built in England during the ten years preceding the launch of the "Royal William," as may be seen by many of the treatises on the steam engine of that date, and, indeed, they had already become rather old fashioned.

But the question of greatest interest is the design of the engines, for, within limits, it is on these alone that the success or otherwise of a steamer depends. Had the "Royal William" achieved in fact such a success as is claimed for her, the details of her engines would have been a matter of prime importance; but in any case it is to be regretted that no particulars of her engines and boilers have been preserved. All that we are told about them is that they were "of about 200 horse-power, from Bennett and Henderson's foundry" (p. 67, Secretary's Report). It is to be regretted that amongst all the verbose and long-winded accounts of her design, building and launch, no more particulars of these, her vital parts are given. Mr. Macdonald, in his book already referred to (p. 22 *ante*), says that they were made by Boulton and Watt, of Birmingham. If this were so, then the Quebec and Halifax Company did no more than Fulton did a quarter of a century earlier, when he built the "Clermont," viz., bought an engine from Boulton and Watt to drive her. Hence, whatever success attaches to the "Clermont" was derived from the builders of her engines in England. But we have already pointed out that we think Mr. Macdonald is incorrect in this, and that the "Royal William's" engines were actually built in Canada; but as fac-similes of those obtained from Boulton and Watt for another steamer built there previously.

It has been asked, Why Boulton and Watt seeing that this house was even at that time excelled by other engine builders of more recent establishment, such as Maudsley of London, Fawcett of Liverpool, or Robert Napier of Glasgow?

Unfortunately for the settlement of this question, the house of Boulton and Watt is no longer in existence; hence we cannot obtain definite and conclusive information. We can, however, be certain of this—that the engines were of the kind and design used by Boulton and Watt at that time; and illustrations of them may be found in any of the early books on the Steam Engine. We may safely conclude that there was not the slightest difference between the engines supplied to Canada (from which these now in debate were copied) and those supplied elsewhere by Messrs. Boulton and Watt. I am told by Sir Purcell Taylor, who is familiar with the history of that firm, and who lived some time close by their famous factory at Soho, Birmingham, "that they were a very conservative firm, introducing very few changes indeed in their designs. Matthew Boulton, the founder of the house, had very soon after he took up the manufacture of Watt's engines, inaugurated the system of fixed sizes and fixed designs for all the engines made there; and this practice was adhered to until the dissolution of the house. It is doubtless true that better or lighter engines might have been obtained from the firms referred to or from others whom we have not mentioned, who had as great or greater reputation for marine engines than Boulton and Watt. But it must be remembered that the latter firm had an immense colonial and foreign connection, and that their trade in marine engines had increased so rapidly that a separate factory was started on the Clyde to build them alone. They had practically the monopoly of the American trade. I do not recollect that any of the other firms ever supplied marine engines to the American Continent."

It is remarkable again that, notwithstanding the number of adulatory reports of her building and launching, no accounts have been preserved of the way in which either ship or engines behaved in Canadian waters.

In the first year, we learn by the Secretary of State's Report already referred to (p. 68) that she made three voyages to Halifax and back, being four days or so under steam on each run and calling at two places on the way—say twenty-four or twenty-six days steaming altogether. In addition to this she made an extra trip to Green Island.

Therefore in the first year her actual work as a steamship was less than a month in duration; and her engines were never at work more than forty-eight hours on end.

At the close of this year, the Company obtained a new

Act of Parliament which allowed the same subsidy as before on a voyage to Pictou instead of to Halifax. We are not told officially why this change was made, which so much shortened the voyage; but there could be only one of two reasons for it. Either there was no trade to Halifax and it was a loss of money to go there, or the "Royal William" was not fit to encounter the weather to be met with outside the river. We should be loth to believe the latter of a vessel which has been lauded to the skies as a triumph of naval construction and engineering, if Mr. Campbell himself, her chief advocate, did not say as much. Recurring to p. 20 of his pamphlet and p. 25 *ante*, he tells us:—

"This last Act relieved the vessel from facing the storms of the Atlantic, and authorised the Finance Minister to pay the subsidy, though the voyage extended no further than Pictou, in Nova Scotia. Now, though we have not been able to get hold of the log-book, what is the inference we must draw from this Act, but that in the autumn of 1831, on one of her trips to Halifax, the 'Royal William' had encountered severe weather on the ocean, that perhaps her bulwarks had been stoven in, her wheels broken, boats carried away, and divers other injuries sustained. On her return to port, it is evident a meeting of the shareholders took place, and a stormy one, I opine, it was."

Mr. Campbell's supposition is confirmed on page 68 of the Secretary of State's Report, where we read that "in a tremendous storm fifty miles east of Cape Canso, she lost her two quarter boats through the breaking of the davits by the sheer force of the gale."

We must, therefore, reluctantly conclude that this "Ocean Steamship," built expressly *as* an ocean steamship, to "contend with the storms of the Atlantic," to use Mr. Campbell's words, is by his own confession and Government reports proved to have been unable to stand a single gale of wind, even within the first six months of her career.

During the year 1832 she made one voyage only, owing to the cholera, being perhaps eight or ten days altogether under steam, and went into winter quarters on 24th October at Sorel. It would appear that her engines had frequently broken during this period, for we find Mr. Henry declaring that during that year he "made several castings for the said steamship's engines." (P. 78, Secretary of State's Report.)

The Company then mortgaged her for £5,000. Pressure was made for repayment, and, on 3rd April, 1833, she was sold by auction, and bought by the mortgagees for £5,000, the sum they had already advanced on her. As she had cost over £16,000, it was a total loss to the stockholders, since all they had received for the ship was £5,000, which was doubtless all due for expenses of maintenance.

Her new owners, the mortgagees, made the following offer to the shareholders a fortnight later, viz., 17th April, 1833. To restore the ship to the original stockholders, on their repaying by 1st June the £5,000, with such other sums as shall have been expended in the outfit of the vessel since the sale, and undertaking to pay off the debts due by the corporation (about £1,000 more), and to run the "Royal William" to Nova Scotia, under the Act of Incorporation, for the benefit of the original stockholders.

Whatever the motives of this apparently generous offer—generous because nothing is said about costs or interest—the old company could not or would not accept it.

The ship then passed into the hands of six of the original stockholders.

After this Captain McDougall (the writer of the letters) took command of her, and she spent the early part of the summer of 1833, from the 8th of May, in pleasure excursions and towing, going afterwards, on 4th June, to Boston and back to Quebec, stopping at three places each way, so that her longest run without a stoppage did not exceed three days. She arrived at Quebec for the last time on the 14th July, thus ending her Canadian career.

Before leaving this part of the story, it would be as well to note that her longest run was never more than three days, and the total time spent in steaming did not exceed three months, or one-twelfth of the time she was afloat.

Then it was decided to get rid of her and send her to England for sale.

The causes of the "Royal William's" failure in the country where she was built are not easy to determine now, nor are we concerned to enquire into them.

It could not be because steam was a novelty on the St. Lawrence, because steamboats had been used there for several years before, and one built three or four years before the "Royal William" was very much larger than her.

The fact remains that this particular ship, whether from lack of business management, or from some defects in her build or machinery, was an utter failure. As an utter failure, and for no other reason, she was sent out of the country. The fact that no bids were made for her at the auction would imply the existence of some defects which cannot now be traced.

It was useless to send her to the United States, for there a more modern and economical type of steamer was in use; nothing could be done with her on the American continent except break her up. In England alone was there a market, and thither was she sent.

This last resource had apparently been before the minds of her first and present owners for months past; but they hesitated to incur the additional cost of sending her to England at their own expense, and it is probable this course would never have been adopted but for Mr. Samuel Cunard.

This gentleman was one of the Directors of the Company. His two brothers, Henry and Joseph Cunard, were also on the Board. Advantage has been taken of this by the Canadians to assert that this "Royal William" was from the first intended for the English trade, after her paces had been tried on the coast—that the Cunards were the mainspring of the whole enterprise—and that as the Cunard line was the pioneer line of Atlantic steam navigation, so the "Royal William" was the pioneer steamer of the Cunard line.

Quite a ring fence of arguments, but there is not a word of truth in it. We have proved that the "Royal William" was built for short coasting trips and nothing else. We can as easily prove that the Cunard line, notwithstanding all its pretensions, was not the first, or anything like the first, of the Atlantic lines. The Cunard line comes fourth in order, its promoters having waited until the way was cleared for them by others—until other people had at their own enormous cost made all the experimenting—and then, reaping the benefit of other people's labour, they tendered to convey the mails at a very much lower rate than could be accepted by the existing lines, who had been at such vast expense in acquiring experience and establishing their steamers.

But to resume. Samuel Cunard, who was one of the Directors of the original Company, and who was their agent in Halifax, advised that the ship should be sent to England for sale, since there was no chance of working or selling her in the colony. Mr. Cunard was also agent in Halifax for the Honourable East India Company, and he hoped to be able to exert sufficient influence to sell the ship to that Company, which was then carrying on steamship communication in and with India. This advice, after some demur about the cost of sending the ship so great a distance at their own expense, was followed by the new owners.

The Canadians may assert that Cunard, being one of the owners of the "Royal William," sent her to England to demonstrate the practicability of a steam mail line to England. Nothing could be further from the fact. None of the Cunards had any share in the ship after her sale by the sheriff; but the advice which was given by Cunard to the old owners was adopted by the new ones.

Supposing the Honourable East India Company did not buy her, there were many opportunities of disposing of a steamer of the current size of that day in Europe, and there were none in America.

# PART V.

## THE "ROYAL WILLIAM'S" ATLANTIC VOYAGE.

Now we come to that eventful voyage of "this young aurora of the seas, prepared to drive darkness, distance, and the winds before her, and constrain the elements themselves to be submissive," as Mr. Campbell puts it.

Judging by Mr. Campbell's language, one would think that no ship had ever crossed the Western ocean before, and that it was a terrible danger which none but Canadians in a Canadian-built ship could face. Yet we believe it had been faced, and that in vessels little larger than a ship's long-boat. We think we have heard of Sir Humphrey Gilbert in his "Squirrel" of ten tons, of Christopher Columbus in his "Santa Maria" of 120 tons, of Sebastian Cabot in his "Matthew" of 200 tons, or, a century previous, of Antonio and Sebastian *Z*eno in ships of similar size.

Where, then, was the risk to be encountered, or the glory of overcoming the dangers of the sea?

Even as a sailing ship, the "Royal William" was of a much larger size than many brigs and schooners that made the same voyage out and home. She was a ship of nearly 400 tons measurement, and she carried 254 chaldrons—equal to 627 tons—of coal, as cargo and for bunker coal. She had "three tall masts, schooner rigged, with three square sails on the foremast," as the newspaper puts it—what we now call a barquentine.

Even if she had really made the voyage by the efforts of her engines alone, as the Canadians would have us believe, it would be but a commonplace performance for a ship of her size—to say nothing of the power of her engines. Some accounts say they were 180 horse-power, others put them at 200 horse-power; not a great difference, 180 horse-power was ample to send her along at seven knots. She had ample fuel for the voyage, and she had her sails to fall back upon in case the engines broke down ; and to aid them while they were at work.

At the time of the year she sailed the weather was most favourable for a voyage to England; since the wind would be right behind her, and her sails alone would have carried her almost, or quite as fast as her engines could.

Her crew was ample—thirty-six in number.

Under these circumstances, using her engines alone continuously, she could have reached England from Pictou in twelve days, or fourteen at the outside. She took twenty-five days.

She left Quebec on her "epoch-making voyage" at 5 a.m. on the 5th August, 1833, for Pictou.

On her way to Pictou something went wrong with the engines—we are not told what.

She reached Pictou on the 8th, and was detained there ten days repairing engines, coaling, and waiting for passengers, of whom she carried seven.

She left Pictou on the 18th August for London.

From this time we know no more of her than that she was spoken by the barque "Rokeby" on 27th August, nine days out in latitude 47° 55′, longitude 45° 30′, *sails set and steam up*. This point is 900 miles from Pictou, and one-third of the distance to London.

Then at any rate she was proceeding, not under steam alone, as we are assured, but under steam and sail.

Of the voyage itself we know absolutely nothing more than is contained in the two letters of her captain, McDougall, one written shortly after her arrival in London, the other twenty years later. Here, at the critical point of the case, the proof breaks down altogether. We are deluged *ad nauseam* with solemn declarations about the plans, building, fitting out, etc., of the ship; none of which are of the slightest consequence to anyone. But of her behaviour at sea on this " epoch-making voyage " we are told nothing.

This could not be for want of evidence.

True, the log-book appears not to have been heard of at all; but the second engineer of the ship, who, of all men, would know the facts, is not asked a single question on the subject; or if he was asked, his testimony has been suppressed. It was not for want of opportunity, for he spent the closing years of his life in Quebec and Montreal, on the very spot where those pamphlets were produced. He was interrogated about the " Royal William," but the only part of his answer that we are allowed to know is, that Samuel Cunard came aboard the ship at Halifax and took notes of her performance, " which doubtless enabled him to establish the magnificent fleet of ocean steamships that still bear his name." We have already shown (p. 46 *ante*) in what manner the Cunards acquired their data, and we pass over this erroneous supposition; but what we want to emphasize is that the second engineer does not tell us anything about the engines, which alone make or mar the steamship.

Nor has a single line been published from any of the forty people on board. Letters must have been written home describing the voyage, but not one of them is forthcoming.

Nor, again, do I find that any steps were taken to ascertain from any of them what the nature of the voyage was. Yet I am told that some of them are still alive.

Comment is needless.

In the captain's letters we find the same state of things existing that has been spoken of by Lardner and Renwick as rendering impossible a continuous steam voyage of more than three or four days' duration, which, the reader will recollect, was the longest run accomplished by the " Royal William " in Canada in river water. At the end of that time he had to stop his engines, empty the boilers, dig out the accumulated salt, fill the boilers again with sea water by hand pumps, re-light the fires and get up the steam once more—a delay, as he tells us "of 24 or 26 hours every fourth day."

If this were not done at the right time, a deposit of salt took place on the furnace plates, which prevented the transmission of heat to the water. The plates became overheated and expanded, as all metals expand with heat, more than those portions of the boiler not exposed to the fire. This expansion took place with irresistible force and tore asunder the rivets uniting the plates of which the boiler was composed, thus producing serious leaks in the boiler. This, the captain tells us, is what actually happened.

First of all the gale on the bank so alarmed the engineer that he wanted to go into Newfoundland, as he reported the vessel to be sinking; and the captain himself says "things looked rather awkward"—that is a good deal for a sailor to say.

They had previously lost the head of the foremast, and with it, I suppose, all the yards and square sails. We are not told how or why; but a seaman does not need to ask, since it could only have occurred from carrying on the sail a little too long, and not reefing and handing in time, during this voyage made under steam.

"One of the engines (the starboard) had become useless from the beginning of the gale; with the other (the port) we could do nothing."

Here, then, the *steamship* came to an end, and throughout the gale the ship depended on her sails alone to keep afloat.

After the gale was over, they managed to run by one engine, stopping every three or four days—or about a week in all—for the needful cleansing of boilers, and repairing them, for they had become very leaky.

Thus we see that she must have carried a press of sail before she reached the Banks, and hence lost the foremast head; that during the gale she depended on her remaining sails alone for command of her; that nine days out, when she had run about nine hundred miles, she was spoken under steam and sail; and that out of the twenty-three days' run from Pictou to Cowes the two engines were in use about three days, and one engine ten days—13 days out of 23.

The "Savannah" used her engines 18 days out of 26.

There is not much difference. If there is, it is on the side of the "Savannah," for her engines were not breaking down constantly, and she did manage to recross the Atlantic home again.

Then what does Captain McDougall mean by "laying-to" different times, about a week? It seems strange that he should simply stop during this boiler cleaning, and not attempt to use the sails which were set when the "Rokeby" passed him.[1]

In the face of his own plain statements, it is disappointing to find Captain McDougall concluding his last letter by saying that "she is justly entitled to be considered the first steamer that crossed the Atlantic by steam, having steamed the whole way across, while the 'Savannah' American steamship, which crossed in 1822 to Liverpool and Petersburg, sailed the most part of the way going and returning."

His memory must have been at fault here, for as we have just shown, the proportionate use of the engines in both cases is much about the same.

The Canadian "Royal William" has always been regarded in the same category as the "Savannah" and "Curacoa," and in 1839 the "Sarah Sands"—that is, where she has been regarded at all, for few think her performance worth mention. Salvatore Raineri, an Italian, who has written a good deal on steam navigation, after describing her voyage, concludes:

---

[1] I do not think that laying-to can be taken in its ordinary sense here. If, as is most probable, he had carried away all or even only the upper square sails when he lost the head of his foremast, lying-to would a very difficult operation, and one which I should not care to attempt in such a ship with only fore and aft sails, for the simple reason that she would very soon jib and carry away everything. He must have carried some sail to steady the ship else she would have rolled the engines right out of her, as happened to one ship I was in, the "Donia." The wind throughout this voyage must have been W.S.W., as it was when the "Rokeby" spoke, and I am therefore forced to conclude that some way was made while the engines were stopped—in other words that the wind was made use of to propel the ship.—C. P. T.

"Il 'Royal William,' il 'Savannah,' il 'Curacoa' non orano originiariamente che velieri, e il propulsore a vapore era pur sempre considerato siccome un ausiliario"[1] ("Storia della Navigazione a Vapore Rome," 1888, p. 296).

Then the ship gets into Cowes on the 9th September and has to lie there a couple of days to clear the boilers and get the ship in trim to be seen in London.

When at last the "Royal William" reached the Thames, she was sold by private contract for £10,000, very much less than half her cost.

| | |
|---|---|
| Her original cost is put down at . . . | £16,000 |
| The mortgage came to . . . . . . | 5,000 |
| Expenses since the sale by auction and debts, about . . . . . . . . . | 1,000 |
| Total cost | £22,000 |

In addition to which, there is the expense of the Atlantic voyage, and the repairs to the engines at Pictou, which I should estimate at £800 to £1,000 more. After she reached London, her captain tells us she was "thoroughly repaired and coppered." I am not told what this additional expense amounted to, but I am informed that whatever it came to it was deducted from the purchase money.

It is curious that the brokers to whom she was sold were shipbrokers for the East India Company (for whom Samuel Cunard was agent in Halifax), and were the prime movers in establishing the renowned Peninsular and Oriental Line. Had the "Royal William" been bought for the Indian trade, it would have been greatly to her credit, and would have proved beyond a doubt that she was a high-class steamer. But that was not the case. I am informed, however, that she was offered to the East India Company, who directed that she should go a trial trip to Hull, but they were not satisfied with her performance and declined to have her.[1] She was bought for private account, and was hired out to the Portuguese Government as a troopship. On her arrival in Lisbon she was offered to the Portuguese Government for sale, but was rejected by their Admiral, Sir Charles Napier. Evidently she was not much use to them, for she made one trip back to London, and was laid up at Deptford for some months.

---

[1] The "Royal William," the "Savannah," and the "Curacoa," were nothing more than sailing ships, and the propulsion by steam was always looked upon as subordinate and auxiliary.

In July, 1834, she went to Portugal again, making one trip between Lisbon and Oporto, and another between Lisbon and Cadiz.

Then she was sold to the Spanish Government, but we are not told at what price.

The Spanish Government used her as a coastguard till 1840, when she was withdrawn from the service on account of her bad condition, and was turned into a hulk at Bordeaux. Her engines were put into another ship.

What then was the total working life of this ship?

In Canada three months steaming.

In the Portuguese charter about two months' steaming.

In the Spanish service, we cannot tell; but. since she was on coastguard duty, probably not more than two months under steam in a year. In six years that would equal twelve months, or seventeen months' work in all her six years and a half of existence.

Then she was sold off for a hulk on account of her bad condition. Letter from Spanish Government, p. 74 of Secretary of State's Report.

Doubtless the reader has by this time had enough of this history of failure and disaster.

---

[1] My father told me that, when a boy, he went this trial trip; and it may that we shall obtain confirmation of it from some source.—C. P. T.

Two stories are related of this ship which we may be pardoned for repeating since they show how in course of years apocryphal anecdotes accumulate. The first is:—

"The ship created a profound sensation and especially upon the officers of one of His Majesty's frigates, who fired at her, so she was compelled to lay-to until convinced that there was nothing diabolical in her construction."

The officers of H.M. Frigates were sufficiently familiar with steamboats years before 1833.

But the next anecdote is richer still.

"The good people of Cockayne thronged to see the strange craft in the Thames, and were heard to remark that the 'Indians' were not unlike themselves, the hallucination being strengthened by the fact that the 'ancient mariners' were talking French!"

This is a little too much. Search has been made through the daily papers of the time, but we cannot find that the addition of one more steamer to the twenty or thirty that daily entered and left London made any impression. No mention of the "Royal William" is to be found in the London daily papers, or even in the periodicals devoted to steam and engineering matters; although they were then and long afterwards full of letters about ocean steam navigation. Her arrival is thus reported in the *Times* of 11th Sept., 1833: "Cowes. September 9. Arrived the 'Royal William' steamer from Quebec and Pictou. Sailed, 19th, ult." And that is the only mention of her. It is curious too that the ancient mariners, *who were all Scotch, should talk French.*

These two anecdotes are related in Preble's "History of Steam Navigation."

He, as well as many others, confuse this Canadian "Royal William" with others of the same name, especially with that one which was successfully employed some years later between Liverpool and Dublin, and between Liverpool and New York.

There were contemporaneously four "Royal Williams." One we have just treated of, the second ran between Leith and London in 1833, the third between London Bridge and Dover. The fourth became famous; she was built in 1837 at Liverpool by Thomas Wilson, in his yard at the north end of the line of docks, and in the immediate vicinity of the battery which formerly commanded the channel of the Mersey. She was built for the City of Dublin Steam Packet Company, and carried the day mail under contract with the Government alternately with the "Duchess of Kent" and the "Iron Duke." The night mails were carried by the Government boats "Urgent," Captain Emerson, the "Shearwater," Captain Smithet, and another, whose name I have forgotten.

This "Royal William" was 600 tons burthen and 240 horse-power. Her engines were of the heavy side-lever class. The cylinders were 58 inches in diameter, with five feet stroke. The pistons made 24 complete strokes per minute, hence the paddle-wheels revolved 24 times in a minute. The safety-valves of her boilers were loaded to five pounds per square inch above the atmosphere. She had jet condensers, but with Kingston's patent valves for blowing off the super salt water from the boilers. This did away with the necessity of stopping to clean out the boilers, as the Canadian steamer had to do. She consumed seven pounds of coal per horse-power per hour in smooth water and with clean boilers. She was rigged as a brigantine with two light masts.

She was chartered by the Transatlantic Steamship Company, and on the 5th July, 1838, she left Liverpool on her first voyage to New York and back, with thirty-two passengers, of whom a shopmate of my own was one.

She carried no cargo, but she had on board coal sufficient to take her 4,500 miles. She made the western passage in 19 days, and the homeward one in 14½ days.

Her last voyage from New York to Liverpool was made in January, 1839, when she encountered the terrible gale of January 6th to 7th in that year.

I was one of those sent on board to overhaul her engines previous to her resuming her place in the City of Dublin